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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,169	12/01/2003	Hee-Deuk Park	1793.1088	9395

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EXAMINER

CHEN, TIANJIE

ART UNIT PAPER NUMBER

2627

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/724,169

Applicant(s)

PARK ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## ***Non-Final Rejection***

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted Prior Art (AAPA) in view of Shi et al (US 6,339,200).

Claim 1, AAPA shows an optical disc drive including: a case having a circuit board 12 ([0005]); a tray 16 ([0005]) to have an optical disc mounted thereon, and installed in the case and slidable in and out of the case; a main base 30 ([0006]) coupled to the tray, the main base including a spindle motor to rotate the optical disc, a bracket 40 ([0006]) to support the spindle motor, an optical pickup 20 ([0006]) to access the optical disc and a driving motor to drive the optical pickup; a flexible printed circuit 14 ([0006]) electrically connecting the circuit board and the tray, on which a ground pattern is formed ([0006] lines 5-6); and a base cover 60 ([0007]) coupled to the main base to protect the main base, wherein an ground pattern, which is formed on pad of the flexible printed circuit; and a contact portion 53 of a leaf spring is formed on the base cover for grounding 50 ([0007]); so the base cover is

grounded; but does not explicitly show that a contact portion electrically contacts the exposure portion of the ground pattern.

Shi et al teaches a structure, wherein a plate 6 has a contact portion electrically contacting the exposure portion of the ground pattern 7b so that static electricity applied to the base cover is grounded and the device is protected against damage due to static electricity (Column 4, lines 14-23). One of ordinary skill in the art would have been motivated to set the contact portion on the cover to electrically contact the exposure portion of the ground pattern for protect the device from static electricity.

Claim 2, AAPA shows the flexible printed circuit includes: a first flexible printed circuit 12 electrically connecting the circuit board and the main base 30 ([0006]); and a second flexible printed circuit 24 electrically connecting the main base and the tray, wherein the exposure portion of the ground pattern is formed on an end portion of the second flexible printed circuit.

Claim 5, AAPA shows that the base cover is coated with an insulation layer ([0007]).

3. Claims 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Shi et al as applied to claim 1 above, and further in view of Chen (US 6,590,848).

Claims 3 and 4, AAPA shows that the contact portion is fixed on the main base by a screw toward the exposure portion of the ground pattern, but does not show that it is formed by cutting a pad of the base cover and bending the cut part.

Chen shows a contact portion 228 (Fig. 2; column 3, lines 29-32) is formed by cutting a pad of the cage and bending the cut part; and teaches that as the contact

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portion is made by screws making the task cumbersome and time consuming.. the improved contact portion is easily for installation without the shortcomings as mentioned above (Column 1, lines 43-48). One of ordinary skill in the art would have been motivated to replace AAPA's contact portion by the design taught by Chen for overcoming the shortcomings.

Claim 6, the above constructed device is an optical disc drive including; a case having a circuit board; a tray to have an optical disc mounted thereon, and installed in the case and slidable in and out of the case; a main base coupled to the tray, the main base including a spindle motor to rotate the optical disc, a bracket to support the spindle motor, an optical pickup to record data on the optical disc and reproduce data while sliding across the optical disc and a driving motor to drive the optical pickup; a flexible printed circuit electrically connecting the circuit board and the tray, wherein a ground pattern is formed on an end portion of the flexible printed circuit and a portion of the ground pattern is exposed outwardly to ground static electricity; and a base cover coupled to the main base and coated with an insulation layer to protect the main base, wherein a contact portion of the base cover is bent toward the portion of the ground pattern and a cut surface of the contact portion is not coated with the insulation layer to allow electricity to flow from the contact portion to the portion of the ground pattern.

#### ***Conclusion***

4. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**TIANJIE CHEN  
PRIMARY EXAMINER**